ocket No.: 055071-0328

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Customer Number: 20277

Robert SOCHA, et al.

Confirmation Number: 2388

Application No.: 10/756,829

Group Art Unit: 2825

Filed: January 14, 2004

Examiner: Suresh Memula

For: METHOD OF OPTICAL PROXIMITY CORRECTION DESIGN FOR CONTACT HOLE

MASK

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

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Respectfully submitted,

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FORMATION DISCLOSURE CITATION IN AN **APPLICATION**

ATTY. DOCKET NO. 055071-0328

SERIAL NO. 10/756,829

APPLICANT

Robert John SOCHA, et al.

(PTO-1449)

FILING DATE

GROUP

January 14, 2004

2825

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SHEET <u>2</u> OF <u>2</u> TATES NEORMATION DISCLOSURE ATTY, DOCKET NO. SERIAL NO. 055071-0328 10/756,829 CITATION IN AN APPLICATION **APPLICANT** Robert John SOCHA, et al. GROUP FILING DATE (PTO-1449) January 14, 2004 2825 U.S. PATENT DOCUMENTS **EXAMINER'S** CITE Document Number **Publication Date** Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where Relevant Passages or Relevant MM-DD-YYYY INITIALS Document Number-Kind Code2 (# known) Figures Appear บร US บร FOREIGN PATENT DOCUMENTS Pages, Columns, Lines **EXAMINER'S Publication Date** Name of Patentee or Foreign Patent Document Translation Applicant of Cited Document INITIALS Where Relevant CITE Country Code3-Number 4-Kind MM-DD-YYYY Yes No Codes (if known) Figures Appear NO. WO 02/03140 A1 01/10/2002 NUMERICAL ¥ TECHNOLOGIES, INC. EP 1 237 046 A2 09/04/2002 ASML MASKTOOLS B.V. EP 1 202 119 A1 05-02-2002 ASML Masktools B.V. x WO 03/054626 A1 07-03-2003 ADVANCED MICRO DEVICES, INC. OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER'S** Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE published NO. Christoph DOLAINSKY, et al., "Simulation based method for sidelobe suppression," Optical Microlithography XIII, Proceedings of SPIE, 2000, pp 1156-1162, Vol. 4000 Kyoji NAKAJO, et al., "Auxiliary pattern generation to cancel unexpected images at sidelobe overlap regions in attenuated phase-shift masks," Nicolas Bailey COBB, "Fast Optical and Process Proximity Correction Algorithms for Integrated Circuit Manufacturing," Ph.D. dissertation, Spring 1998, pp 35-72, University of California at Berkeley J. Fung CHEN, et al., "Practical I-Line OPC Contact Masks for Sub-0.3Micron Design Rule Application: Part 1--OPC Design Optimization," pp 181-201 J.A. TORRES, et al., "Contrast-Based Assist Feature Optimization," Optical Microlithography XV, 2002, pp 179-187, Proceedings of SPIE, Vol 4691, SPIE Olivier TOUBLAN, et al., "Fully Automatic Side Lobe Detection and Correction Technique for Attenuated Phase Shift Masks," Optical Microlithography XIV, 2001, pp 1541-1547, Proccedings of SPIE, Vol. 4346, SPIE Michael S. YEUNG, "Extension of the Hopkins theory of partially coherent imaging to include thin-film interference effects," Optical/Laser Microlithography VI, 1993, pp 452-463, SPIE, Vol. 1927 Douglas VAN DEN BROEKE, et al., "Near 0.3 k, Full Pitch Range Contact Hole Patterning Using Chromeless Phase Lithography (CPL)," Proceedings of the SPIE, September 9, 2003, pp 297-308, Vol. 5256, SPIE **EXAMINER** DATE CONSIDERED

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